



Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS
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CROP REPORT FOR WEEK ENDING MAY 10

Planting progress was hampered once again by rain during the past week, according to the Indiana Agricultural Statistics Service. Corn planting made very limited progress, and is currently about 2 weeks behind normal. Soybean planting didn't progress, and is about 10 days behind normal. With less than one day suitable for fieldwork this past week, the cumulative total for the past 6 weeks is a meager 9.4 days. Even though little of the corn has been planted, some farmers already face the possibility of replanting, as continued rainfall has left water standing in fields across the state.

CORN AND SOYBEANS

Corn planting advanced to 14 percent complete, well behind 69 percent last year and the 35 percent average for this date. By region, corn planting is 16 percent complete in the north, 14 percent complete in the central, and 8 percent complete in the south. Four percent of the corn is **emerged**. **Soybean planting** remains 3 percent complete, behind 30 percent last year and the average of 12 percent.

WINTER WHEAT

Ninety-eight percent of the **winter wheat** acreage is **jointed**, compared to 87 percent last year. By region, 96 percent is jointed in the north, 98 percent in the central, and nearly 100 percent in the south. Thirty-seven percent of the crop is **headed**, well ahead of 9 percent last year and the 10 percent average. Winter wheat **condition** is rated 81 percent good to excellent, compared to 62 percent at this time last year. There has been an increase in disease reports, however condition remains very good.

OTHER CROPS

Pasture condition is rated 24 percent excellent, 53 percent good, 22 percent fair and 1 percent poor. Livestock are in good condition with very few problems reported.

DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 0.7 days were rated **suitable for fieldwork**. **Topsoil moisture** was rated 14 percent adequate and 86 percent surplus. **Subsoil moisture** was rated 29 percent adequate and 71 percent surplus.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
Percent				
Corn Planted	14	10	69	35
Corn Emerged	4	NA	NA	NA
Soybeans Planted	3	3	30	12
Winter Wheat Jointed	98	96	87	73
Winter Wheat Headed	37	12	9	10

CROP CONDITION

Crop	Very Poor	Poor	Fair	Good	Excellent
Percent					
Winter Wheat 5/10	0	2	17	54	27
Winter Wheat 5/3	1	3	14	56	26
Winter Wheat 1997	1	6	31	51	11
Pasture	0	1	22	53	24

SOIL MOISTURE

	This Week	Last Week	Last Year
Percent			
Topsoil			
Very Short	0	0	0
Short	0	0	3
Adequate	14	27	60
Surplus	86	73	37
Subsoil			
Very Short	0	0	0
Short	0	1	3
Adequate	29	46	70
Surplus	71	53	27

--Ralph W. Gann, State Statistician

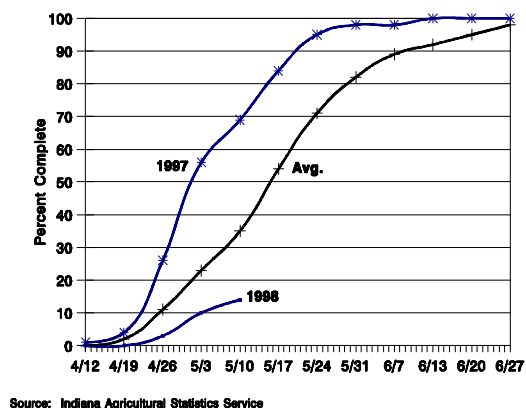
--Lance Honig, Agricultural Statistician

E-Mail Address: nass-in@nass.usda.gov

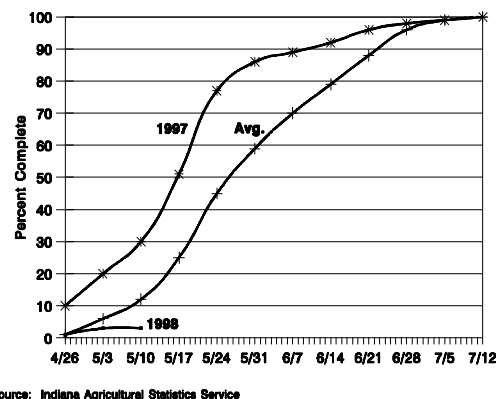
<http://info.aes.purdue.edu/agstat/nass.html>

Crop Progress

% Corn Planted - Indiana



% Soybeans Planted - Indiana



Don't Pull the Trigger Yet on Hybrid Maturities

- Don't consider switching to earlier maturing corn hybrids until early June.

The fear mongers among us are already worrying about the need to switch to earlier maturing corn hybrids as corn planting continues its slow pace in 1998. Some are even speculating how many intended acres of corn will have to be replaced with soybean to accommodate the shortened growing season. My response to this as of early May?.....Phooey! (or words to that effect!)

Recent research conducted by former graduate students Greg Brown (currently with Asgrow Seeds) and Tony Halter (currently with Pioneer Hi-Bred) under the direction of myself and Peter Thomison (Ohio State Univ.) provides insight into the often challenging question of when to switch from "full season" hybrids to early maturing ones as planting is delayed. Greg and Tony investigated the effects of delayed planting on the relationship between corn hybrid development and thermal time. The bottom line of their research conducted at 12 environments throughout Indiana and Ohio was that pollination and especially grain maturation occurred in less thermal time as planting was delayed.

The practical consequence of this research is that a hybrid will require fewer GDD to mature when planted later and later. In fact, the rate of decrease in season-long GDD is about 6.5 GDD per day of delayed planting beyond May 1. For example, a 2700 GDD hybrid planted May 31 (i.e., 30 days beyond May 1) will likely mature in 2505 GDD ($30 \times 6.5 = 195$ fewer GDD).

Based on this research, we can more accurately determine when to "pull the trigger" and switch to earlier maturities as planting is delayed. Table 1 lists "normal" full-season hybrid maturities (my opinion) for geographic areas of Indiana and their corresponding approximate GDD ratings from planting to kernel black layer (see my

accompanying article, A Primer on Hybrid Maturity Ratings). The hybrid CRM (comparative relative maturity) and GDD ratings illustrated in the table correspond closely with those used by Pioneer Hi-Bred International, Inc.

The first conclusion that can be made using the results of our research is that there is no need to consider switching to earlier maturing hybrids anywhere in Indiana until early June plantings. Hybrids with relative maturities and GDD listed in Table 1 will likely mature safely when planted anytime during the month of May in Indiana.

Table 1. "Normal" full-season hybrid maturities for geographic areas of Indiana and their corresponding approximate GDD ratings from planting to kernel black layer.

Area of Indiana	"Normal" full-season CRM	Approximate GDD to black layer
Northwest	106	2571
N Central	106	2571
Northeast	106	2571
W Central	112	2707
Central	112	2707
E Central	106	2571
Southwest	116	2798
S Central	112	2707
Southeast	112	2707

Hybrid CRM (comparative relative maturity) values and GDD ratings correspond closely with those used by Pioneer Hi-Bred Int'l Inc.

(Continued on Page 4.)

Average Daily Values for week ending Monday morning May 11, 1998

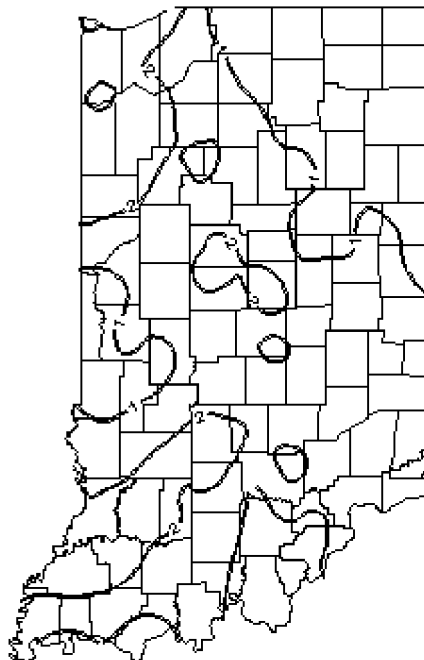
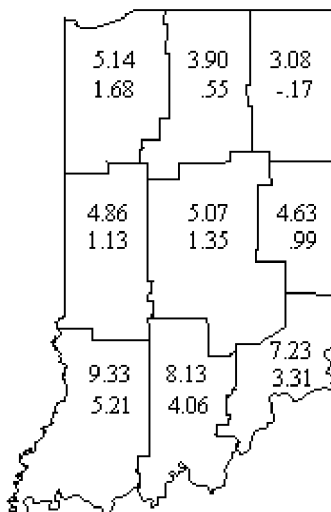
Area	Station	Air Temperature			Precipitation			Growing Degree Days		
		Max	Min	DN	Past Week	Since April 1	DN Since April 1	Past Week	Since April 1	DN Since April 1
NW	Wanatah	70	47	+3	1.82	6.80	+1.80	78	290	+78
	Kentland	71	53	+4	1.34	7.07	+2.23	88	334	+70
	Winamac	70	52	+3	1.15	6.56	+1.75	84	317	+48
NC	South Bend	72	52	+5	.49	4.76	-.08	91	292	+69
	Waterford Mills	72	53	+5	1.17	5.11	+.62	95	330	+82
NE	Prairie Heights	71	53	+7	.75	5.83	+1.15	89	318	+124
	Columbia City	70	53	+6	.58	6.22	+1.46	88	309	+76
	Fort Wayne	69	54	+4	.33	7.08	+2.56	87	313	+67
	Bluffton	70	55	+4	.56	6.67	+1.80	91	324	+56
WC	West Lafayette	70	53	+3	1.77	7.57	+2.56	86	335	+76
	Perrysville	71	54	+1	.56	6.49	+.67	92	359	-7
	Crawfordsville	70	51	+3	1.30	6.58	+1.67	87	346	+82
	Terre Haute 8s	73	56	+4	.56	7.55	+2.08	105	415	+96
C	Tipton	69	51	+3	1.71	7.84	+2.64	79	303	+53
	Indianapolis	70	55	+2	1.54	7.36	+2.25	91	360	+46
	Indian Creek	72	55	+4	1.16	8.12	+2.64	96	381	+65
EC	Farmland	71	53	+5	1.23	7.74	+2.92	90	333	+91
	Liberty	70	53	+3	1.47	8.45	+2.96	86	347	+22
SW	Vincennes	72	54	+2	1.69	11.72	+6.05	95	388	+40
	Dubois	71	53	+1	1.46	10.66	+4.78	88	373	+38
	Evansville	72	57	+2	.42	11.11	+5.38	106	408	+8
SC	Bedford	71	52	+2	2.27	15.85	+10.15	89	365	+30
	Louisville	71	56	+1	1.25	8.77	+2.88	100	427	+28
SE	Butlerville	71	53	+1	.92	11.90	+6.27	93	378	-10

DN = departure from normal.

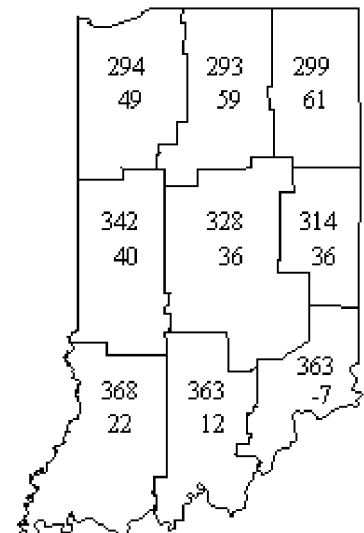
Growing Degree Days = daily mean - 50 (below 50 adjusted to 50, above 86 adjusted to 86.)

Rainfall of 1 inch or more
for the Past 7 Days
as of Monday morning

Rainfall for the Past 4 Weeks
and Departure from Normal



Growing Degree Days
and Departure since April 1



Hybrids (continued)

Once planting is delayed into June, the ever-increasing reduction in growing season length (measured by available GDD) finally begins to surpass the full-season hybrids' abilities to adjust their developmental GDD needs. Table 2 lists the hybrid relative maturity values that would be appropriate for planting during the first half of June. These values are estimated according to the hybrids' GDD adaptations to delayed planting and the available length of growing season between the planting period and the average first killing fall frost.

If planting is delayed into early June, the northern and east central areas of the state are the first to justify switching to earlier maturing corn hybrids (Table 2). By the second week of June, hybrid maturity switching would be advised for all of the northern two-thirds of the state.

Note: Be aware that there are no agreed upon standards within the seed industry for assigning relative hybrid maturities. The hybrid CRMs listed in Table 2 correspond most closely to those used by Pioneer Hi-Bred Int'l, Inc. Given Pioneer's large market share in seed corn, almost every other seed corn company can likely tell you which of their hybrid maturities correspond to Pioneer hybrids with the CRMs listed in Table 2.

Table 2. Approximate corn hybrid maturities appropriate for delayed plantings throughout Indiana.

Area of Indiana	CRM appropriate for June 1 - 7	CRM appropriate for June 8 - 14
Northwest	104	101
N Central	102	99
Northeast	102	99
W Central	112	110
Central	112	108
E Central	103	100
Southwest	116	116
S Central	112	112
Southeast	112	112

Shaded cells indicate hybrid maturities earlier than normally used for area of state.

Hybrid CRM (comparative relative maturity) values correspond closely with those used by Pioneer Hi-Bred Int'l, Inc.

--Bob Nielsen, Professor of Agronomy, Purdue University